

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Rachel A. Meyers
Serial No. : Unassigned
Filed : Herewith
Title : 33521, A NOVEL HUMAN GUANINE NUCLEOTIDE EXCHANGE FAMILY
MEMBER AND USES THEREOF

BOX PATENT APPLICATION

Commissioner for Patents
Washington, D.C. 20231

VERIFIED STATEMENT UNDER 37 CFR §1.821(f)

I, Katica Magovcevic, declare that I personally prepared the paper and the computer-readable copy of the Sequence Listing filed herewith for the above-identified application and that the content of both is the same.

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of The United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: 9/24/01

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September 25, 2001
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Signature

Joanne D. Boyle
Typed or Printed Name of Person Signing Certificate

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<110> Meyers, Rachel A.

<130> 10448-095001

<151> 2000-09-25

<170> FastSEQ for Windows Version 4.0

<211> 5437

<212> DNA

<213> Homo sapiens

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Lys Pro Val Gln Arg Val Leu Lys Tyr Pro Leu Leu Leu Lys Glu Leu	1250	1255	1260	
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Val Ser Leu Thr Asp Gln Glu Ser Glu Glu His Tyr His Leu Thr Glu	1265	1270	1275	
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Leu Met His Ser Thr Val Ser Trp Leu Asn Pro Phe Leu Ser Leu Gly	1330	1335	1340	
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Lys Ala Arg Lys Asp Leu Glu Leu Thr Val Phe Val Phe Lys Arg Ala	1345	1350	1355	
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Val Ile Leu Val Tyr Lys Glu Asn Cys Lys Leu Lys Lys Lys Leu Pro	1360	1365	1370	
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Ser Asn Ser Arg Pro Ala His Asn Ser Thr Asp Leu Asp Pro Phe Lys	1375	1380	1385	1390
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Phe Arg Trp Leu Ile Pro Ile Ser Ala Leu Gln Val Arg Leu Gly Asn	1395	1400	1405	
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Asp Ser Glu Ser Lys Thr Asn Ile Val Lys Val Ile Arg Ser Ile Leu	1440	1445	1450	
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Arg Glu Asn Phe Arg Arg His Ile Lys Cys Glu Leu Pro Leu Glu Lys	1455	1460	1465	1470

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cctcctaacc	agtcccaact	gctggaggaa	ttcctggata	actttaaaaa	gaatacagcc	3060
aatgatttca	gcaacgtccc	tgatatcaca	acaggtctga	aaaggagtca	gacagatggc	3120

```
<210> 4
<211> 85
<212> PRT
<213> Artificial Sequence
```

```

<400> 4
Val Ile Lys Glu Gly Trp Leu Leu Lys Lys Ser Lys Ser Trp Lys Lys
 1          5          10          15
Arg Tyr Phe Val Leu Phe Asn Asn Val Leu Leu Tyr Tyr Lys Asp Ser
          20          25          30
Lys Lys Lys Pro Lys Gly Ser Ile Pro Leu Ser Gly Cys Gln Val Glu
          35          40          45
Lys Pro Asp Lys Asn Cys Phe Glu Ile Arg Thr Asp Arg Thr Leu Leu
          50          55          60
Leu Gln Ala Glu Ser Glu Glu Glu Arg Lys Glu Trp Val Lys Ala Ile
65          70          75          80
Gln Ser Ala Ile Arg

```

```
<210> 5
<211> 77
<212> PRT
<213> Artificial Sequence
```

<400> 5															
Lys	Thr	Ile	Arg	Val	His	Leu	Pro	Asn	Asn	Gln	Arg	Ser	Val	Val	Glu
1				5					10					15	
Val	Arg	Pro	Gly	Met	Thr	Val	Arg	Asp	Ala	Leu	Ala	Lys	Ala	Leu	Lys
			20					25					30		
Lys	Arg	Gly	Leu	Asn	Pro	Ser	Ala	Cys	Val	Val	Arg	Arg	Ser	Gly	Asp
		35					40					45			
Pro	Gln	Glu	Gly	Glu	Lys	Lys	Pro	Leu	Asp	Leu	Asp	Thr	Asp	Ile	Ser
	50					55					60				
Ser	Leu	Pro	Gly	Pro	Glu	Glu	Leu	Val	Val	Glu	Asn	Leu			
65					70					75					

<220>
<223> Consensus sequence

```
<210> 7
<211> 207
<212> PRT
<213> Artificial Sequence
```

```

<400> 7
Val Leu Lys Glu Leu Leu Glu Thr Glu Lys Lys Tyr Val Arg Asp Leu
 1             5             10             15
Glu Ile Leu Asp Asn Val Tyr Met Lys Pro Leu Arg Glu Ala Ala Ile
      20             25             30

```

```
<210> 8
<211> 67
<212> PRT
<213> Artificial Sequence
```

```

<400> 8
Phe Val Leu Phe Asn Asn Val Leu Leu Tyr Tyr Lys Asp Ser Lys Lys
 1          5          10          15
Lys Pro Lys Gly Ser Ile Pro Leu Ser Gly Cys Gln Val Glu Lys Pro
          20          25          30
Asp Lys Asn Cys Phe Glu Ile Arg Thr Asp Arg Thr Leu Leu Leu Gln
          35          40          45
Ala Glu Ser Glu Glu Glu Arg Lys Glu Trp Val Lys Ala Ile Gln Ser
 50          55          60
Ala Ile Arg
65

```

<220>
<223> Consensus sequence

```

<400> 9
Val Ile Lys Glu Gly Trp Leu Leu Lys Lys Ser Lys Ser Trp Lys Lys
 1           5           10           15
Arg Tyr Phe Val Leu Phe Asn Gly Val Leu Leu Tyr Tyr Lys Ser Lys
      20           25           30
Lys Pro Lys Gly Ser Ile Pro Leu Ser Gly Cys Ser Val Arg Glu Pro

```

```

      35          40          45
Cys Phe Glu Ile Val Thr Asp Arg Thr Leu Leu Leu Gln Ala Glu Ser
      50          55          60
Glu Glu Glu Arg Glu Glu Trp Val Glu Ala Leu Gln Ser Ala Ile Ala
65          70          75          80
Lys Ala

```

```

<210> 10
<211> 76
<212> PRT
<213> Artificial Sequence

```

```

<220>
<223> Consensus sequence

```

```

<400> 10
Lys Thr Cys Arg Val His Leu Pro Asp Asn Gln Arg Thr Val Val Lys
1          5          10          15
Val Arg Pro Gly Lys Thr Val Arg Asp Ala Leu Ala Lys Ala Leu Lys
      20          25          30
Lys Arg Gly Leu Asn Pro Glu Ala Cys Val Val Arg Leu Arg Gly Asp
      35          40          45
Pro Gln Glu Gly Glu Lys Lys Pro Leu Asp Leu Asn Gln Asp Ile Ser
      50          55          60
Ser Leu Ala Gly Gln Glu Leu Val Val Glu Glu Leu
65          70          75

```

```

<210> 11
<211> 80
<212> PRT
<213> Artificial Sequence

```

```

<220>
<223> Consensus sequence

```

```

<400> 11
Gly Gly Leu Gly Phe Ser Ile Val Gly Gly Ile Phe Val Ser Ser Val
1          5          10          15
Val Pro Gly Ser Pro Ala Ala Lys Ala Gly Arg Lys Ser Leu Gly Leu
      20          25          30
Leu Lys Val Gly Asp Val Ile Leu Glu Val Asn Gly Glu Thr Ser Val
      35          40          45
Glu Gly Leu Thr His Glu Glu Ala Val Asp Leu Leu Lys Lys Ala Gly
      50          55          60
Gly Gly Gly Val Gly Glu Lys Val Thr Leu Thr Val Leu Arg Gly Gly
65          70          75          80

```

```

<210> 12
<211> 211
<212> PRT
<213> Artificial Sequence

```

```

<220>
<223> Consensus sequence

```

```

<400> 12

```

```
<210> 13
<211> 82
<212> PRT
<213> Artificial Sequence
```

<220>
<223> Consensus sequence

[illegible]